

Recombinant Human CCNE1/Cyclin-E1 Protein (His & GST Tag)

Catalog No. PKSH031364

Note: Centrifuge before opening to ensure complete recovery of vial contents.

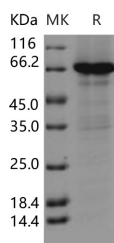
Description

Synonyms	CCNE
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Ala 410
Accession	NP_001229.1
Calculated Molecular Weight	75.0 kDa
Observed molecular weight	70 kDa
Tag	N-His-GST
Bioactivity	Immobilized human HG3C-CCNE1 at 10 µg/ml (100 µl/well) can bind biotinylated human GST-CDK4, The EC50 of biotinylated human GST-CDK4 is 45.0-106.0 ng/ml.

Properties

Purity	> 82 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, 1mM GSH, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

Cyclin E1 is a member of the highly conserved cyclin family and belongs to the E-type cyclin that functions as a regulator of S phase entry and progression in mammalian cells. Cyclin E1 serves as regulatory subunits that bind, activate, and provide substrate for its associated cyclin-dependent kinase2 (CDK2), whose activity is essential for cell cycle G1 / S transition. Over expression of this encoding gene has been found in many tumors, which results in chromosome instability and by extension, induce tumorigenesis. This protein was also found to associate with, and be involved in, the phosphorylation of NPAT protein (nuclear protein mapped to the ATM locus), which participates in cell-cycle regulated histone gene expression and plays a critical role in promoting cell-cycle progression in the absence of pRB. In general, cyclin E1, as an activator of phospho-CDK2 (pCDK2), is important for cell cycle progression and is frequently overexpressed in cancer cells.

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